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(D) <i>The digestive system.</i>	
Icterus.....	1
(E) <i>The urinary system.</i>	
Bright's disease.....	1
(H) <i>Affections connected with parturition.</i>	
Childbirth	1
(I) <i>The skin.</i>	
Boils	4
(J) <i>Diseases of organs of locomotion.</i>	
Hip-joint disease	1
III.—UNDEFINED.	
Dropsy.....	4
Undiagnosed	14
Total.....	473

Death rate per 1,000 per annum for September, 1899, 22.2.

COLOMBIA.

Description of the country around Bocas del Toro from a sanitary point of view—Fruit plantations.

MOBILE, ALA., December 8, 1899.

SIR: I have the honor herewith to submit to the Bureau the results of the observations made during a trip around the Chiriqui Lagoon after the close of the quarantine season of 1899. Transmitted under separate cover is a chart of the lagoon and vicinity, on which I have attempted to locate the various settlements and plantations with which ships engaged in the fruit trade have communication.

The Chiriqui Lagoon is described as being 32 miles long, from east to west, 12 miles wide in the center, 5 at its eastern, and 10 at its western extremity, and is capable of receiving, in security, vessels of heavy draught. The entrance between Bluefield Point and Water Cay is 3½ miles wide, being open north and south.

I visited all the large plantations of the United Fruit Company, starting at Monkey Cay on the western shore, going as far down as Cricamola River. The shores of the lagoon for the greater part, all around, are low and swampy for a distance of one to two miles inland. The plantations are situated behind the swamp, in the valleys of the numerous rivers and creeks which enter the lagoon, and access is had to them either by boats up the streams, or by narrow-gauge railroads, which have been built through the swamp. So numerous are these plantations that I should estimate the population in the lagoon proper at about 5,000. On the larger estates, especially those of the United Fruit Company, commodious buildings have been erected for the accommodation of employees and laborers.

The meteorological conditions are peculiar, owing to the influence of the northeast trade winds and the high cordillera in the background; the amount of rainfall is something enormous, there being practically no dry season; electrical disturbances are rare; wind squalls are frequent, hurricanes never occur; the average barometric pressure is 29.50 inches, and the temperature varies between 75° and 90° F.

Hospital of the United Fruit Company.

On Monkey Cay, a small island in the northwestern corner of the lagoon, is located the hospital of the United Fruit Company. It is an admirable location, high and dry, and exposed to the winds from all directions; the building itself picturesquely situated in a beautiful cocoanut grove. The hospital, as yet in its incipency, is well appointed, and in charge of a competent physician. Since its establishment last August up to the time of my visit, there had been treated 20 patients with 2 deaths. All the cases were typical malarial fever in its various forms, and the deaths were due chiefly to neglect before treatment was sought. This hospital is for the benefit of the many white employees of the company, most of whom are foreigners.

The western shore of the lagoon is largely under cultivation, many plantations lying in the numerous fertile valleys among the foothills. In visiting the more important, I took occasion to look into all cases of sickness that I could find, with the same result everywhere, malarial fever, chiefly of the tertian variety, being the only prevailing disease. Nowhere could I hear of the previous existence of any such infectious diseases as measles, whooping cough, scarlet fever, or the like. While occasionally seen, enteric troubles are rare. In this part of the lagoon Robalo River seems to be the most unhealthy point, the houses being built almost in the swamp. During the past summer cases of severe forms of malaria occurred here, among foreigners.

I found it impossible to form any idea of the death rate among the population of the lagoon, no records being kept. Many negroes die from neglect; but little notice is taken when one dies, and the bodies are buried in the bush. Among the foreigners and others of some means, the habit is to take the very sick to Bocas del Toro, and then in the event of the death it swells the death rate at that place. In considering sanitary conditions here, it is difficult to arrive at the true value of actual climatic and local influences, as the abuse of alcohol plays so large a part in the production of disease, and in many cases of fatal outcome the previous history of drinking can not be disregarded as a factor.

Chiriqui Valley and village.

By far the most important district in the lagoon is the Chiriqui Valley, between Fish Creek and Man Creek, at which points great spurs from the cordillera come down to the water's edge, and through which runs the Guaroma River. In this valley and along this river are located the largest estates of the United Fruit Company, better known as the Chiriquicito and Eureka plantations, which extend over thousands of acres and which employ several hundred men. The sanitary conditions of this region can not be called good. Lying in a low valley, shut in by the hills, and subject to a heavy rainfall the year round, paludal fevers of severe form, often complicated with dysentery are always prevalent. The foreigners residing here especially suffer, although deaths among them are rare. The work on these plantations is arduous in the extreme, and it is remarkable how well the men, both white and black, stand it. Every nerve is strained to get the fruit out in time for the steamer, promptly, quickly, and neither rain, storm, nor sickness must deter it. Under the management of the United Fruit Company the health of these people will be materially bettered, as everything is being done to provide suitable buildings for the proper

housing of employee and laborer, and to provide them with an abundance of good food.

On the shore line of this valley as it opens out on the lagoon, is situated the village of Chiriqui Grande. This village lies at the foot of a range of hills, which rise to a height of several hundred feet, on a narrow strip of sandy beach, which was probably formed by the washing down, by the heavy rains, of silt from the hillside. The houses, mostly light frame structures, are strung out in two rows forming a single street, one row built on piling over the water, the other row along the foot of the hill. I estimate the population at between 500 and 600, chiefly Chiriquanos, a mixed race of Spanish and Indian, who came originally from the high plateaux in the interior. There are few Jamaicans, some Chinamen, and a few foreigners, the latter mixing and amalgamating with the Chiriquans. From here a trail, very hard to travel, leads to the cordillera, over the divide to the port David on the Pacific coast.

Sanitary conditions are not the best in Chiriqui Grande. Open to the east it receives the sea breeze, but becomes fearfully hot when other winds prevail. No regard is paid to hygiene, public or private. Refuse and offal are thrown everywhere, and what goes into the sea is washed back by each flood tide, there being no current to carry it off. Strange to say, no rain water is collected for drinking purposes, as is done everywhere else. The principal water supply is a spring on the hillside, which collects in a small pool walled in by a few rocks, and no care is taken to protect it from pollution. One or two little creeks run out along the base of the hills, but they are rendered brackish by the tide, and are used for bathing and the washing of clothes. The tide backing in keeps these sinkholes, for such they are, in a filthy condition. Malarial fever is very common here, and at certain seasons, July and December, of quite a severe type. In the fall of 1897, 36 deaths took place in six weeks, as I learned from a reliable source. This is the nearest approach to an epidemic around here that has come to my knowledge, and I am inclined to think that it was yellow fever. Everything is propitious for the spread of any infection that might be brought in. During the past summer several cases of pneumonia originated here.

I describe this place particularly, as it promises to become a place of some importance. It is not, however, a port of entry. There is considerable passenger traffic between this place and Bocas del Toro by means of naphtha and steam launches. The United Fruit Company will soon make this the outlet of the large plantations, and has now under construction a pier extending 1,000 feet into the lagoon. In another year the question will arise if, during quarantine season, ships will be allowed to moor alongside this dock to take on cargo.

East of the Chiriqui Valley as far as the Cricamola River all the valleys are covered with plantations, and high up the valley of the Biarri River a new region is being exploited. Sanitary conditions at all these places are about the same. Up the Cricamola River, the largest stream entering the lagoon, about 10 miles from the coast, are again found large estates of the United Fruit Company. Among the laborers on these plantations are seen many Chiriqui Indians, who come down from the mountains in the interior, and I found them very susceptible to the fevers of the coast, though here again the abuse of alcohol must be taken into consideration. The Cricamola Valley is subject to frequent inundations from sudden freshets, which may account for the continual prevalence of malarial fever.

Eastern Shore of the Lagoon.

The eastern shore of the lagoon, from the Cricamola River to Bluefield Point is sparsely populated, and only a few small plantations are located on this coast.

Referring to communication with the outside world, and the chances of infection being brought into the lagoon, I must say that there is nothing to prevent smaller vessels coming from any point to any part of the lagoon. It is not infrequent that cargoes are smuggled into the numerous creeks and streams, and quarantine laws have been evaded in this way. Quite recently a canoe landed at Bluefield Point, bringing passengers direct from Panama. I merely mention this as an instance of how it can be done.

Reference to the chart will show the course of the steamers of the United Fruit Company, and the points of anchorage where fruit is loaded. Other steamers stop at many of the creeks wherever fruit may be awaiting them. Anchorage is usually from one quarter to 1 mile off-shore.

Numerous plantations and settlements lie along the shores of Almirante Bay and on the many adjacent islands. The fruit from all these places is collected in lighters and brought to the anchorage before the town of del Toro, where it is loaded on the steamers. The population in this region numbers about 1,500, exclusive of the town of Bocas del Toro with its population of about 2,500. The situation of the islands and the shores of Almirante Bay seems to have some favorable influence on the health conditions, as the people here suffer less from malarial fever than those in the lagoon. The sea breeze may account for this to some extent, and the rainfall is considerably less.

On the western shore of the bay new lands are being opened, and a road is being pushed through the swamp to reach the valley of the Changinola River, a large stream emptying into the sea on the coast above Columbus Island. This will open up immense tracts of virgin land which, in time, will rival the Chiriqui Valley.

Hoping that the above will give some idea of the topography, climate, and sanitary conditions of the country around Bocas del Toro, and serve for future guidance in quarantine matters, I respectfully submit it.

Respectfully,

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The SURGEON-GENERAL,

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CUBA.

Report from Cienfuegos, Casilda, and Santa Cruz del Sur.

CIENTFUEGOS, CUBA, *December 11, 1899.*

SIR: I have the honor to report that during the week ended December 9, 27 deaths have occurred in this city, 3 from malaria, 6 from intestinal diseases, and 4 from tuberculosis. No contagious diseases reported. Death rate for the week is 35.19. During the week six foreign vessels have been inspected upon arrival and seven previous to departure.

Casilda.—Dr. Alejandro Cantero reports 11 deaths during the week in Trinidad, 1 from malaria, 1 from intestinal diseases, and 3 from tuberculosis. No contagious diseases reported. Inspected five vessels during the week.